

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)
)
Implementation of the Local Competition)
Provisions in the Telecommunications Act)
of 1996)
)
State of New York Department of)
Public Service Request for the)
Release of a New Area Code for the)
716 Numbering Plan Area)
)

CC Docket No. 96-98

NSD File No. L-00-161

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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COMMENTS OF WORLDCOM, INC.

On May 22, 2000, the New York Public Service Commission ("NYPSC") ordered implementation of a geographic split of the existing 716 numbering plan area ("NPA") along county boundaries. Ordinarily, the North American Numbering Plan Administrator ("NANPA") would almost automatically comply with a state request for release of a relief area code. In this instance, however, the relief plan would violate the industry's area code relief guidelines by splitting approximately 14 rate areas between the old and new NPAs. Accordingly, the NANPA denied the NYPSC's request for a new area code. The NYPSC has now requested that the Commission direct the NANPA to release a relief area code. Because the area code relief plan ordered by the NYPSC would waste scarce numbering resources and impose unnecessary burdens and costs on service providers and their customers, WorldCom, Inc. ("WorldCom") recommends that the Commission deny the NYPSC's request.

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I. The planned NPA split would waste numbering resources.

An NPA split that also splits existing rate areas has several significant, negative impacts on numbering resource optimization efforts. The first and most blatant is the duplication of NXX codes that is needed to prevent customers from undergoing complete, 10-digit number changes. Code duplication is not, however, the only repercussion of rate area splits for number conservation. While the NYPSC has acknowledged the need for code duplication, it has not recognized these other impacts.¹

An NPA split that splits rate areas requires code duplication to prevent 10-digit number changes because, prior to the split, end users located on both sides of the new boundary shared the same NPA-NXX codes. Without duplication, that NXX would only exist on one side of the boundary, and end users on the other side would have to be assigned completely new telephone numbers. The need for duplication arises in three different scenarios. First, a CLEC-assigned NXX code will need duplication if the CLEC has assigned numbers within the NXX code to end users on both sides of the new boundary. This occurs because CLECs typically assign telephone numbers throughout the rate area with which each NXX code is associated. Second, an ILEC-assigned NXX code will need duplication if, in addition to splitting the rate area, the NPA split also divides ILEC wire centers. This is so because ILECs typically limit their use of NXXs to their wire center geography. Third, an ILEC-assigned NXX may also require duplication even if the split does not divide wire centers, if telephone numbers within the NXX have been ported to CLECs and the end users have moved to new locations within the rate area, but outside of the ILEC wire center, or if there are significant differences between

ILEC and CLEC mapping systems which derive the NPA into which the customer service address falls.

The amount of relief inherent in any NPA split is dependent on the number of new NXX codes made available for assignment by the split. An NPA consists of, at most, 792 assignable NXX codes. Thus an ordinary NPA split can make available no more than 792 new NXX codes. In this case, however, the split could make available no more than 763 new NXX codes, since 29 codes will have to be duplicated immediately upon implementation of the split.

The duplication of codes is not the end of the story. The effects of a split such as this continue throughout the lives of the affected NPAs. An NPA split that splits rate areas is the opposite of rate center consolidation. Rate center consolidation promotes numbering efficiencies by reducing the number of rate areas in which service providers must obtain resources. Rate center consolidation allows service providers to assign numbering resources throughout a larger geographic area and thereby reduces the risk of stranded resources. Splitting rate areas, which might be called “rate center disintegration,” has exactly the opposite effects. If a new entrant seeks to enter this market after the split occurs, it would in all likelihood need to obtain resources on both sides of the rate area split. Before the split, a single code or block would have sufficed. After the split, two codes or blocks will be needed.

This ongoing inefficiency created by rate center disintegration is not limited to the initial code requests of new entrants. The split will also change the needs of service providers for growth resources in a manner that detracts from numbering resource

¹ According to the NYPSC, the planned split would affect approximately 14 rate areas and require duplication of approximately 29 NXX codes. WorldCom does not know the source of this information and

optimization. A service provider with resources on each side of the boundary may exhaust its inventory on one side, and have to seek additional resources, even though it still has a substantial inventory on the other side of the boundary.

Demand for growth resources is further distorted by the line-level announcements necessitated by such a split. When a normal NPA split takes place, recorded announcements are made at the NXX level indicating to callers that they have dialed incorrectly. This requires a period of time in which NXX codes are not duplicated. However, with duplication it is necessary to make these announcements at the line level. Which means that individual telephone numbers within the duplicated codes will not be available for assignment until the time required for announcements is completed. Thus, service providers will be holding telephone numbers hostage and thereby increasing the likelihood that they will require growth resources despite having unused telephone numbers.

II. The planned split is a step backwards in network evolution.

The Commission has rightly encouraged all states to seriously consider rate center consolidation. In this case, the NYDPS has ordered an NPA split that accomplishes the exact opposite – rate center disintegration. The supposed benefit is that by splitting along county boundaries, the split will be more convenient for customers located along the boundary line. In addition to the burdens and costs identified below, this split is also exactly opposite to the direction in which the network is evolving.

Number portability has made it possible for end users to change service providers without changing telephone numbers. One of the Commission's requirements

cannot vouch for its accuracy, but in these comments we assume it to be approximately correct.

for number portability is that service providers be able to migrate to service and location portability.² True location portability is inconsistent with the policy behind this split. While the NYPSC seeks to strengthen the relationship between geography and telephone number, the Commission's own policies recognize that the network will evolve in the opposite direction. The Commission should not be a partner to this backward step in network evolution.

The proposed NPA split is also detrimental to important, existing network functionalities. The split reduces the possible scope for future rate center consolidation. It limits the extent to which customers can move and retain their telephone numbers. Finally, it will diminish the effectiveness of thousands-block pooling and increase the likelihood that numbers are stranded either in individual carrier inventories or in the pools. This will occur because the efficiency of any pool is related to the size of the rate area with which it is associated. When the number of rate areas is increased, more pools must be established. When rate areas are made smaller, the efficiency of pooling is reduced.

The fact that pooling has begun in 716 will further complicate matters. Heretofore, no pooling administrator has been involved in a rate area split. There are no guidelines or cost estimates for implementing such a split in the context of pooling. Implementation of this split may impact pooling in ways that have not yet been fully considered. For example, the administrator may have to determine whether any additional pools necessitated by the rate area split will require donated resources or the opening of new codes. It could also increase pooling costs by increasing the number of rate area pools that are required.

² 47 C.F.R. § 52.23(a)(7).

III. The planned NPA split would impose unjustified burdens and costs on service providers and their customers.

An NPA split that also splits rate areas imposes substantial additional burdens and costs on service providers and end user customers. Implementation of such a split depends on the use of extraordinary, largely manual measures. The potential for errors in implementation increases substantially with an NPA split that splits rate areas. Such errors may harm end user customers as well as service providers.

Implementation of a split such as that ordered by the NYPSC requires enormous additional efforts on the part of service providers. Relief planning and implementation are significantly complicated by splitting rate areas.³

To plan for such a split, each service provider must “geocode” all of its customers in the affected rate areas to determine in which NPA they will reside after the split. This requires geographically mapping every single customer telephone number and service address against the new boundaries. To accomplish this, carriers typically use mapping software. It is important to note that there is no standard or reference map or mapping software upon which all parties can rely. Service providers may use maps of varying accuracy and consistency. This introduces the possibility that service providers might implement the split inconsistently, an outcome that is not possible when rate area boundaries are maintained. In addition to geocoding, service providers must also change their provisioning and OSS to ensure that all new customers acquired before mandatory dialing begins, are correctly mapped to their post-split NPA. In contrast, in a traditional split an entire NXX will be mapped to the new area code or will remain in the existing

³ There may also be customer education complications with such a split. In a rate area split in another state which adhered to ILEC wire center boundaries, CLECs were required to send a letter to each customer impacted by the split since there was no clear boundary that callers could identify.

area code. This is a relatively simple, ubiquitous conversion that is easily performed by carriers and easy for customers to understand.

In preparation for implementation of an NPA split that divides rate areas, it is critical that all carriers provide to the NANPA their list of NXXs to be duplicated. This information must be shared among all. Otherwise, a service provider with a ported number might assume that the NXX would be duplicated, but if the LERG-assignee for that NXX does not request duplication, the ported number would not exist in the appropriate NPA at mandatory dialing. As a result, the customer would be unable to receive phone calls.

Implementation of a line-level split also requires a massive effort related to OSS record conversion and ANI-conversion, over and above the work required for a normal split. The first step in this process is to put together a master list of all in-service telephone numbers in the duplicated codes. Every carrier must have a list of these numbers for itself and for every other carrier. This is a totally manual process that introduces a significant risk of error into implementation. Failure to correctly identify a single telephone number on this master list could affect customer billing and also confuse callers trying to reach a particular customer.

Once this master list of telephone numbers is assembled, service providers must use the list to make needed record and ANI-conversions. Record conversions are needed to ensure that service providers' OSS correctly reflect each customer's NPA-NXX. This is needed for long distance providers as well as local providers. Inaccurate or incomplete record conversions could cause carriers to bill customers incorrectly. For example, if an interexchange carrier does not obtain an accurate telephone number list, it might treat

calls originated from a particular customer in the new NPA as casually-dialed because it does not recognize the telephone number as that of a presubscribed customer.

Incorrect record conversion may also affect E-911 services. Like all other OSS databases, the ALI database must be updated at the line level to ensure that each customer is associated with the correct NPA. Any errors here could make it more difficult for the E-911 operator to call back a party that places an emergency service call. If the ALI is incorrect, the E-911 operator will dial the incorrect NPA, only to reach a recorded announcement.

ANI-conversion is done telephone number by telephone number at the switch level. It requires a switch translations engineer to manually reprogram each affected telephone number in the switch to ensure that originating telephone numbers reflect the correct NPA. Moreover, recorded announcements must also be programmed into the switch at the line level. This is necessary to ensure that when a caller dials the wrong NPA, their call is forwarded to the correct announcement instructing them on how to dial.

ANI-conversion must be completed at the time when mandatory dialing begins. These line-level switch changes can take up significant amounts of switch capacity during high-traffic periods. Any mistakes in the ANI-conversion process could cause customers to fail to receive correctly dialed calls. Moreover, there may be no way for the customer to know that this problem is occurring.

The line-level split may also create significant, additional network congestion. In a normal split, misdialled calls can be identified in the originating switch, since the entire NXX is guaranteed to be inactive at the start of mandatory dialing. But in a line-level split with duplicated codes, the calls must be routed to the terminating switch before it

can be determined whether or not the right NPA was used. At the start of mandatory dialing there will typically be a lot of callers still dialing the pre-existing NPA. These callers should expect to hear an announcement directing them to dial the correct NPA. Since there is a limited amount of trunk capacity to the terminating switch, as well as a limited number of announcement channels at the terminating switch, many callers will receive a default message which does not supply the correct information to dial the correct NPA.

There is no practical way to educate customers calling in to 716 or to the relief NPA regarding the correct NPA that they should be dialing. For most residential customers, this means they will make more calls to the wrong NPA that require redialing. The problem is more serious for customers with PBX equipment. PBX owners must, in effect, reprogram their PBXs at the line level to ensure that calls are made to the correct NPA.

A line-level split such as that ordered by the NYPSC places a substantial burden on service providers. Implementation of such a split depends upon the coordination of a series of largely manual processes. Errors are possible at each step in the embedded processes of each service provider. Ultimately, the burden and the risk of error are borne not only by service providers, but also by end user customers. No rate area split has yet been accomplished without error, despite the best efforts of the carriers and state commissions involved.

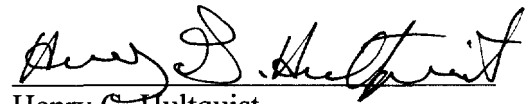
IV. Conclusion

The Commission should not direct the NANPA to release any new area codes where a planned geographic split would also split rate areas. Examined in isolation, any

one of these splits might appear relatively inconsequential. But the cumulative impact of many such splits will inevitably hasten the exhaust of the numbering plan, as well as individual area codes. This particular split ignores the trend in network evolution toward disassociation between telephone number and geography, by basing network boundaries on county boundaries. Finally, line-level splits impose extraordinary burdens and costs on telecommunications service provider and their customers.

Respectfully submitted,

WorldCom, Inc.

A handwritten signature in dark ink, appearing to read "Henry G. Hultquist", written over a horizontal line.

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September 5, 2000

CERTIFICATE OF SERVICE

I, Vivian Lee, do hereby certify that copies of the foregoing Comments of WorldCom, Inc. In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, State of New York Department of Public Service Request for the Release of a New Area Code for the 716 Numbering Plan Area were sent via first class mail, postage paid, to the following on this 5th day of September 2000.

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